

REMARKS

Claim Rejections

Claims 1 and 3-9 are rejected under 35 U.S.C. § 102(b) as being anticipated by Sato et al. (U.S. 5,902,971). Claims 1, 3-5, 7 and 8 are rejected under 35 U.S.C. § 102(b) as being anticipated by Yamaki et al. (U.S. 5,431,013). Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Sato et al. or Yamaki et al. as applied to claim 1 and in view of design choice.

Drawings

It is noted that the Examiner has accepted the drawings as originally filed with this application.

Amendments to Specification

Applicant has amended the specification as noted above to cure obvious grammatical and idiomatic inaccuracies and to provide proper antecedent basis in the specification for the check valve components. No “new matter” has been added to the original disclosure by the foregoing amendments to the specification.

New Claims

By this Amendment, Applicant has canceled claims 1-9 and has added new claims 10-17 to this application. It is believed that the new claims specifically set forth each element of Applicant’s invention in full compliance with 35 U.S.C. § 112, and define subject matter that is patentably distinguishable over the cited prior art, taken individually or in combination.

The new claims are directed toward an engine exhaust structure for a machine comprising: a front case (4) having a exhaust input opening (41) connected to a manifold (73) of the machine and receiving an exhaust gas from the machine; a rear case (6) having a plurality of holes (61); and a board (5) having: an outer periphery connected between the front case and the rear case; a board opening (51); a bent part (52) connected to the board opening and the rear case; and a beehive portion (53, 54) connected to an opening in the bent part and treating the

exhaust gas, wherein the exhaust gas flows from the exhaust input opening through the beehive portion and is released through the plurality of holes.

Other embodiments of the present invention include: a unidirectional check valve (77) connected to the manifold of the machine between the machine and the front case; the front case has an air inlet (42) and a unidirectional check valve (44) connected to the air inlet; the beehive is wound in a cylindrical shape; the beehive is wound in a columnar shape; the check valve is a guided check valve; a check block of the check valve is selected from a group of blocks consisting of a sphere, a cone stopper, a board, and a diaphragm; and the machine is selected from a group of machines consisting of a mowing machine, a blower, a chain saw, a power generator, a pump, and a lumber saw.

The primary reference to Sato et al. teaches a muffler (20) connected to an exhaust port (10) of an engine (1) and having a partition plate (40) located between inner wall panels (41, 42). A shell (52) with a catalyst (50) is located through the partition plate (40).

Sato et al. do not teach a rear case having a plurality of holes; a board having a bent part connected to the board opening and the rear case; a beehive portion connected to an opening in the bent part; the exhaust gas flows from the exhaust input opening through the beehive portion and is released through the plurality of holes; nor do Sato et al. teach a unidirectional check valve connected to the manifold of the machine between the machine and the front case.

It is axiomatic in U.S. patent law that, in order for a reference to anticipate a claimed structure, it must clearly disclose each and every feature of the claimed structure. Applicant submits that it is abundantly clear, as discussed above, that Sato et al. do not disclose each and every feature of Applicant's new claims and, therefore, could not possibly anticipate these claims under 35 U.S.C. § 102. Absent a specific showing of these features, Sato et al. cannot be said to anticipate any of Applicant's new claims under 35 U.S.C. § 102.

The secondary reference to Yamaki et al. teaches an engine exhaust apparatus including a muffler body (2a) having partition plates (18, 19), a catalyst holder (20), a catalyst (21) located in the catalyst holder, an exhaust gas intake pipe (15), an exhaust pipe (4), and an air intake pipe (31).

Yamaki et al. do not teach a front case having a exhaust input opening connected to a manifold of the machine and receiving an exhaust gas from the machine; a rear case having a plurality of holes; a board having an outer periphery connected between the front case and the rear case; a bent part connected to the board opening and the rear case; a beehive portion connected to an opening in the bent part; the exhaust gas flows from the exhaust input opening through the beehive portion and is released through the plurality of holes; nor do Yamaki et al. teach a unidirectional check valve connected to the manifold of the machine between the machine and the front case.

It is axiomatic in U.S. patent law that, in order for a reference to anticipate a claimed structure, it must clearly disclose each and every feature of the claimed structure. Applicant submits that it is abundantly clear, as discussed above, that Yamaki et al. do not disclose each and every feature of Applicant's new claims and, therefore, could not possibly anticipate these claims under 35 U.S.C. § 102. Absent a specific showing of these features, Yamaki et al. cannot be said to anticipate any of Applicant's new claims under 35 U.S.C. § 102.

Even if the teachings of Sato et al. and Yamaki et al. were combined, as suggested by the Examiner, the resultant combination does not suggest: a rear case having a plurality of holes; a board having a bent part connected to the board opening and the rear case; a beehive portion connected to an opening in the bent part; the exhaust gas flows from the exhaust input opening through the beehive portion and is released through the plurality of holes; nor does the combination suggest a unidirectional check valve connected to the manifold of the machine between the machine and the front case.

It is further submitted that neither Sato et al. nor Yamaki et al. disclose, or suggest any modification of their specifically disclosed structures that would lead one having ordinary skill in the art to arrive at Applicant's claimed structure. Thus, it is believed that neither Sato et al. nor Yamaki et al. render obvious any of Applicant's new claims under 35 U.S.C. § 103.

Summary

In view of the foregoing amendments and remarks, Applicant submits that this application is now in condition for allowance and such action is respectfully requested. Should any points remain in issue, which the Examiner feels could best be resolved by either a personal or a telephone interview, it is urged that Applicant's local attorney be contacted at the exchange listed below.

Respectfully submitted,

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